REMARKS

Reconsideration is respectfully requested in light of the following remarks.

Claims 1-39 are currently pending in the application with claims 1, 25, 29, 30 and 31 as the independent claims.

Claims 30-39 were previously withdrawn from consideration.

Change of Attorney Docket Number

Applicant respectfully requests that all future correspondence reference docket number **28549-202507**. Applicant concurrently submits a ***Power of Attorney and Change of Correspondence Address*** which also indicates this change in docket number.

Rejections under 35 U.S.C. § 103(a)

- Claims 1-9 and 15-30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,844,649 issued to Yamahara et al. (hereinafter "Yamahara"), in view of "Transparent Metal Electrodes: The Photonic Band Gap Approach" authored by Bloemer et al. (hereinafter "Bloemer July '98"). See Office Action at ¶ 2.

- Claims 10-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamahara in view of Bloemer July '98 and in further view of "Transmissive Properties of Ag/MgF_2 Photonic Band Gap" authored by Bloemer et al. (hereinafter "Bloemer April '98"). See Office Action at ¶ 3 (at page 10).

Applicant respectfully traverses the rejection and submits the following remarks.

With respect to both rejections encompassing claims 1-30, applicant respectfully agrees with the Examiner that Yamahara fails to teach at least a first transparent electrode that includes a transparent metal stack having a layered structure including alternating meal and interstitial layers

formed on one another to exhibit a photonic band gap structure. This is because Yamahara teaches the use of Indium Tin Oxide (ITO) in an LCD device. Yamahara does not teach nor suggest the use of transparent metal stacks, as required by the claimed invention. The Office Action argues, however, that it would have been obvious to one of ordinary skill in the art to use metal stacks instead of ITO in the display device of Yamahara. In support of this argument, the Office Action cites the two Bloemer references. For the reasons given below, applicant respectfully traverses.

Applicant respectfully submits that one of ordinary skill in the art would only arrive at that point where transparent metal stacks may be implemented after careful consideration and knowledge of the properties of light propagation in the layered structures that contain metals, as described in the present application. As disclosed in the application, such properties include but are not limited to increased conductivity and lower power consumption. Yamahara appears to teach the use of ITO as a semiconductor that, in its natural state, is transparent to natural light. In contrast, metals, which are much more conductive, are opaque in their natural states. As such, one would surmise that metals are not to be used at all when transparency is one of the basic characteristics that a device must exhibit, because any amount of metal deposited without regard to the photonic band gap principles embodied in the claimed invention would result in an opaque device. See the present application, e.g., specification at ¶ 10 and 17. Therefore, the use of transparent metal stacks, which obtain transparency through the application of a voltage across their layers is neither taught nor suggested by Yamahara. The combination of Yamahara with one or both of the Bloemer references is now discussed.

With respect to the cited references, Bloemer July '98 and Bloemer April '98, applicant respectfully submits that this application is a continuation-in-part of "Transparent Metallo-Dielectric Photonic Band Gap Structure," Serial No. 08/931,756, by M. Scalora, filed on September 16, 1997, issued as US Patent No. 6,262,830 on July 17, 2001. Therefore, the instant priority date of the application is September 18, 1997. The publication dates of the Bloemer references, July, 1998 and April, 1998, respectively, are after the priority date of the present application. As such, neither of the Bloemer references may be relied upon as prior art when forming the basis of a rejection against the present application.

Applicant, therefore, respectfully submits that the Office Action has not set forth a prima facie case of obviousness, and respectfully requests that all rejections based on the cited references be withdrawn be withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all currently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Dated: 4/22/04

Respectfully submitted,

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